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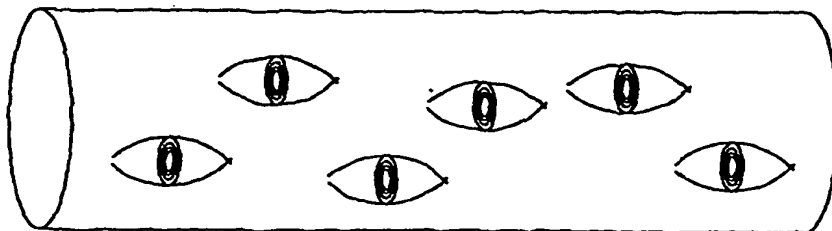
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(54) Title: **SYNTHETIC, BIOABSORBABLE POLYMER MATERIALS AND IMPLANTS**



(57) Abstract: The invention
relates to synthetic, bioabsorbable
polymer materials and implants,
like fibres, sutures, meshes and
other tissue management, wound
closure or tissue engineering
devices, which contain: a)
a bioabsorbable polymeric
matrix; b) antibiotic and/or
anti-inflammatory agent particles
or mixture thereof, dispersed in

the matrix, and c) optionally an additive agent to facilitate device recognition and/or handling to facilitate the use and application of
finalized product. In the matrix, cavities around the particles are induced by mechanical processing of the matrix phase. A preferred
embodiment of the present invention is a device (suture) that provides a sustained release of antibiotic agent over several days to
several weeks for the prevention or treatment of infection. The sutures may be effectively implanted into or in the vicinity of: 1)
infected tissue, 2) potentially infected tissue, or in tissues where infection, should it occur, leads to disastrous consequences.

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